524J
PACKAGED AIR-HANDLING UNITS, 60 Hz
WITH PURON® (R-410A) REFRIGERANT
SIZES: 16, 25, 28, 30

Electrical Data Supplement

NOTE: Read the entire instruction manual before starting the installation

This supplement only applies to 524J size 16, 25, 28 & 30 units when the 13th digit of the Model Number is either a 1, 2, or 3 as shown in the Model Number Nomenclature diagram below. Check the Unit Nameplate (see Figs. 1 & 2). If the digit in the 13th position is not either a 1, 2, or 3 discard this document.

MODEL NUMBER NOMENCLATURE

1	2	3	4	5	6	7	8	9	10	11	12	**13**	14	15	16	17
5	2	4	J	E	1	6	A	0	0	0	A	**1**	0	A	A	A

Model
524J = Packaged Air-Handling Unit
Puron® R-410A Refirgerant

Voltage
T = 575-3-60l
J = 208/230-1-60
P = 208/230-3-60
E = 208/230/460-3-60*

Cooling Tons
16 = 15 ton
25 = 20 ton
28 = 25 ton
30 = 30 ton

Type of Coil
A = Standard 4 Row DX Puron Coil
H = Heat Pump

Factory Assigned
0 = Default

Factory Assigned
0 = Default

Factory Assigned
0 = Default

Coil Options
A = Standard Aluminum Fin / Copper Tube

Indoor Fan Options – Belt Drive
1 = Standard Motor/ Standard Drive
2 = Standard Motor / Medimum Drive
3 = High Motor / High Drive**

* Size 16 units are triple voltage in the “E” configuration unless the unit is equipped with the discrete 460-3-60 High Static motor option.

** Size 30 units - designate standard motor and high static drive.

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SAFETY CONSIDERATIONS

Improper installation, adjustment, alteration, service, maintenance, or use can cause explosion, fire, electrical shock or other conditions which may cause personal injury or property damage. Consult a qualified installer, service agency, or your distributor or branch for information or assistance. The qualified installer or agency must use factory-authorized kits or accessories when modifying this product. Refer to the individual instructions packaged with the kits or accessories when installing.

Follow all safety codes. Wear safety glasses and work gloves. Use quenching cloths for brazing operations and have a fire extinguisher available. Read these instructions thoroughly and follow all warnings or cautions attached to the unit. Consult local building codes and appropriate national electrical codes (in USA, ANSI/NFPA70, National Electrical Code (NEC); in Canada, CSA C22.1) for special requirements.

It is important to recognize safety information. This is the safety-alert symbol ⚠. When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, CAUTION, and NOTE. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which **will** result in severe personal injury or death. WARNING signifies hazards which **could** result in personal injury or death. CAUTION is used to identify unsafe practices, which **may** result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

⚠ CAUTION

ELECTRICAL HAZARD

Failure to follow this caution may result in personal injury or product and property damage.

The electrical data contained in this document is only for use with 524J size 16, 25, 28 and 30 units which display either a 1, 2, or 3 in the 13th position of the 17 digit model number as displayed on the unit's nameplate.

See Fig. 1 for location of the unit's nameplate.

See Fig. 2 for details of the 17 digit model number.

⚠ WARNING

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could cause personal injury or death.

Before performing service or maintenance operations on unit, always turn off main power switch to unit and install lockout tag. Unit may have more than one power switch.

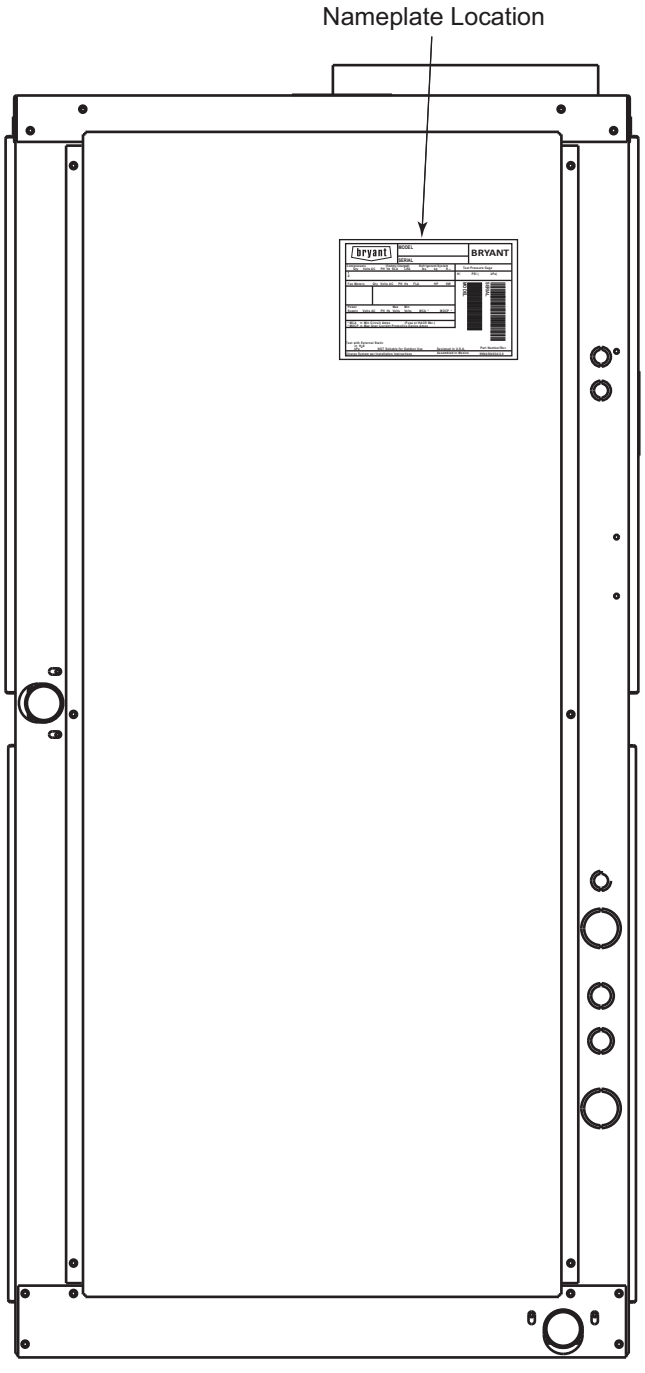

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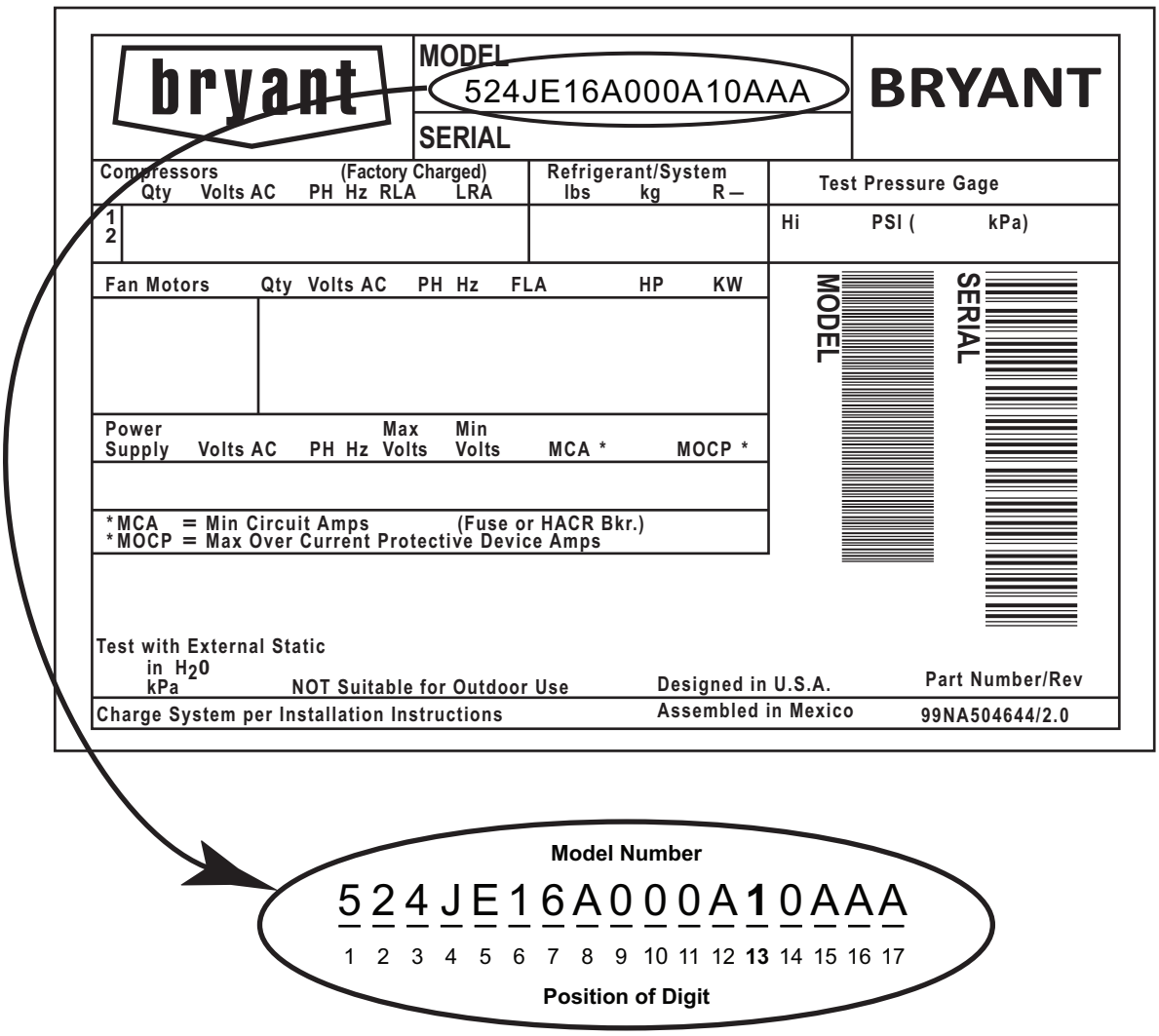
Fig. 1 - Location of Unit Nameplate


bryant
MODEL
524JE16A000A10AAA
SERIAL
BRYANT
Compressors (Factory Charged)
Qty Volts AC PH Hz RLA LRA
Refrigerant/System
lbs kg R—
Test Pressure Gage
1
2
Hi PSI (kPa)
Fan Motors Qty Volts AC PH Hz FLA HP KW
MODEL
SERIAL
Power Supply Volts AC PH Hz Max Volts Min Volts MCA * MOCP *
*MCA = Min Circuit Amps (Fuse or HACR Bkr.)
*MOCP = Max Over Current Protective Device Amps
Test with External Static
in H20
kPa
NOT Suitable for Outdoor Use
Designed in U.S.A.
Part Number/Rev
Charge System per Installation Instructions
Assembled in Mexico
99NA504644/2.0
Model Number
5 2 4 J E 1 6 A 0 0 0 A 1 0 A A A
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
Position of Digit

C11004

Fig. 2 - Example of Nameplate with Model Number

Table 1 – Electrical Data, Standard Motors

UNIT	V–PH–Hz†	VOLTAGE LIMITS	FAN MOTOR		POWER SUPPLY	
			Hp (kW)	FLA	Minimum Circuit Amps	MOCP
524J*16A 524J*16H	208/230–3–60	187–253	3.7 (2.76)	10.6	13.3	20
	460–3–60	414–506	3.7 (2.76)	4.6	6.0	15
	575–3–60	518–632	3.0 (2.24)	3.8	4.8	15
524J*25A 524J*25H	208/230–3–60	187–253	5.0 (3.73)	14.6/12.8	18.3/16.0	30/25
	460–3–60	414–506	5.0 (3.73)	6.4	8.0	15
	575–3–60	518–632	5.0 (3.73)	5.1	6.4	15
524J*28A	208/230–3–60	187–253	7.5 (5.59)	21.4/19.4	26.9/24.3	45/40
	460–3–60	414–506	7.5 (5.59)	9.7	12.1	20
	575–3–60	518–632	7.5 (5.59)	7.8	9.8	15
524J*30A	208/230–3–60	187–253	10.0 (7.46)	28.2/26.8	35.3/33.5	60/60
	460–3–60	414–506	10.0 (7.46)	13.4	16.8	30
	575–3–60	518–632	10.0 (7.46)	10.3	12.9	20

NOTE: See page 5 for table legend and notes

Table 2 – Electrical Data, Alternate Motors

UNIT	V–PH–Hz†	VOLTAGE LIMITS	FAN MOTOR		POWER SUPPLY	
			Hp (kW)	FLA	Minimum Circuit Amps	MOCP
524J*16A 524J*16H	208/230–3–60	187–253	5.0 (3.73)	14.6/12.8	18.3/16.0	30/25
	460–3–60	414–506	5.0 (3.73)	6.4	8.0	15
	575–3–60	518–632	5.0 (3.73)	5.1	6.4	15
524J*25A 524J*25H	208/230–3–60	187–253	7.5 (5.59)	21.4/19.4	26.9/24.3	45/40
	460–3–60	414–506	7.5 (5.59)	9.7	12.1	20
	575–3–60	518–632	7.5 (5.59)	7.8	9.8	15
524J*28A 524J*30A	208/230–3–60	187–253	10.0 (7.46)	28.2/26.8	35.3/33.5	60/60
	460–3–60	414–506	10.0 (7.46)	13.4	16.8	30
	575–3–60	518–632	10.0 (7.46)	10.3	12.9	20

NOTE: See below for table legend and notes

Legend and Notes for Tables 1 and 2

LEGEND:

FLA – Full Load Amps

MOCP – Maximum Overcurrent Protection

† Motors are designed for satisfactory operation within 10% of normal voltage shown. Voltages should not exceed the limits shown in the Voltage Limits column.

NOTES:

1. Minimum circuit amps (MCA) and MOCP values are calculated in accordance with The NEC. Article 440.
2. Motor FLA values are established in accordance with Underwriters' Laboratories (UL). Standard 1995.
3. **Unbalanced 3-Phase Supply Voltage**
   Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the formula in the example (see column to the right) to determine the percentage of voltage imbalance.
4. Installation with Accessory Electric Heaters
   Size the Field Power Wiring between the heater TB1 and the 40RU indoor fan motor per NEC Article 430–28 (1) or (2) (depends on length of conduit between heater enclosure and 40RU power entry location). Install wires in field–installed conduit.

Example: Supply voltage is 230-3-60

$$\% \text{ Voltage Imbalance} = 100 \times \frac{\text{max voltage deviation from average voltage}}{\text{average voltage}}$$

AB = 393 v
BC = 403 v
AC = 396 v

$$\text{Average Voltage} = \frac{(393 + 403 + 396)}{3} = \frac{1192}{3}$$

$$= 397$$

Determine maximum deviation from average voltage.
(AB) 397 – 393 = 4 v
(BC) 403 – 397 = 6 v
(AC) 397 – 396 = 1 v
Maximum deviation is 4 v.
Determine percent of voltage imbalance.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{6}{397}$$

$$= 1.5\%$$

This amount of phase imbalance is satisfactory as it is below the maximum allowable 2%.

IMPORTANT: If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately.

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Replaces: New